

## Title (en)

PROSTHETIC GROUPS ATTACHED TO STANNYLATED POLYMERS FOR THE SYNTHESIS OF RADIOPHARMACEUTICALS

## Title (de)

PROTHESENGRUPPEN GEBUNDEN AN STANNYLIERTEN POLYMEREN FÜR DIE SYNTHESE VON RADIOPHARMAZEUTIKA

## Title (fr)

GROUPEMENTS PROSTHETIQUES ATTACHES A DES POLYMERES STANNYLES POUR LA SYNTHESE DE COMPOSES RADIOPHARMACEUTIQUES

## Publication

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## Application

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## Abstract (en)

[origin: WO2004098650A2] The present invention relates to compositions and methods for preparing radiopharmaceutical compounds in high chemical-purity and isotopic-purity. The present invention provides polymer-bound precursors to radiopharmaceutical compounds that can be converted to radiopharmaceutical compounds in one step. In a preferred embodiment, a radiopharmaceutical precursor is bound to a polymeric support via a prosthetic group comprising an alkenyl-tin bond. The radiopharmaceutical precursor is converted to a radiopharmaceutical compound in one step involving cleavage of the alkenyl-tin bond and incorporation of a radioisotope to form the radiopharmaceutical compound. Importantly, the polymeric support containing the toxic tin by-products can be easily removed from the radiopharmaceutical compound by filtration. The present invention can be used to install a large number of different radioisotopes. In a preferred embodiment, the radioisotope is  $^{211}\text{At}$ ,  $^{123}\text{I}$ , or  $^{131}\text{I}$ .

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